

## A NEW SPECIES RECORD OF *MASTIXIA* (CORNACEAE) IN PENINSULAR MALAYSIA

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CHUNG, R.C.K. & LATIFF, A. 1996. A new species record of *Mastixia* (Cornaceae) in Peninsular Malaysia. *Mastixia rostrata*, represented by ssp. *caudatifolia*, is reported for the first time from Peninsular Malaysia. A key to *Mastixia* species recognized in Peninsular Malaysia is given and an illustration of the newly recorded subspecies is provided.

Key words: *Mastixia* - Cornaceae - new record - Peninsular Malaysia

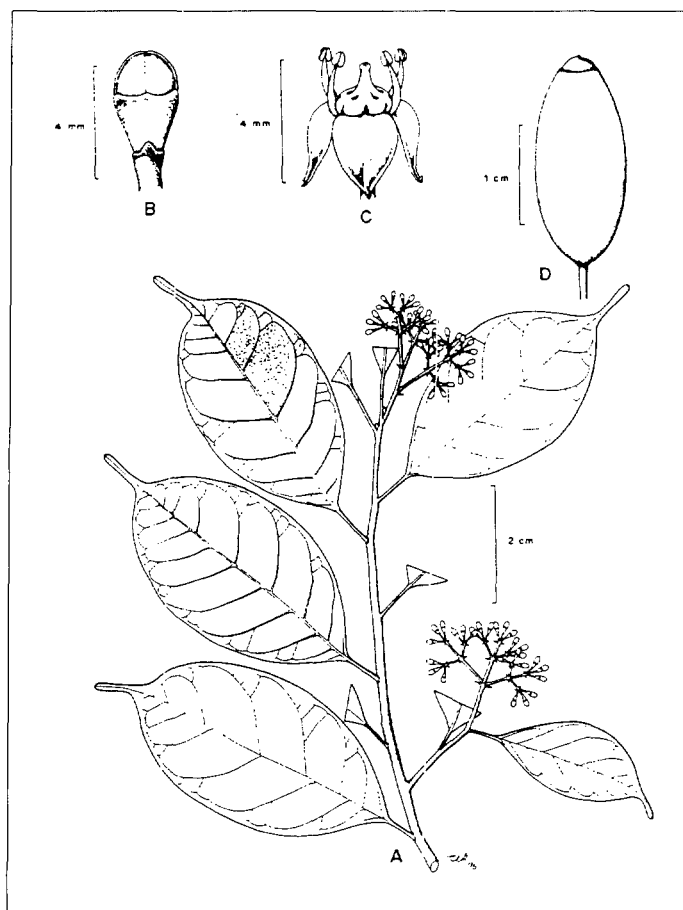
CHUNG, R.C.K. & LATIFF, A. 1996. Satu rekod spesies baru *Mastixia* (Cornaceae) di Semenanjung Malaysia. *Mastixia rostrata* diwakili oleh satu rekod baru, ssp. *caudatifolia*, dilaporkan untuk kali pertama dari Semenanjung Malaysia. Satu kunci kepada spesies *Mastixia* yang dijumpai di Semenanjung Malaysia disediakan dan satu ilustrasi bagi rekod baru tersebut ditunjukkan.

### Introduction

The genus *Mastixia* (Cornaceae) was created in 1825 by Blume based on two Javanese species. Matthew (1976, 1977) revised this genus for Malesia, and based on these accounts, Kochummen (1978) treated the genus for Peninsular Malaysia. Recently, it was discovered that a number of specimens collected from Fraser's Hill and Genting Highlands in Peninsular Malaysia belonged to *Mastixia rostrata* Blume, represented by ssp. *caudatifolia* (Merr.) Matthew. This species was previously unknown in Peninsular Malaysia. In the present paper, notes on this species (and subspecies) and a key to the species of *Mastixia* recognised in Peninsular Malaysia are provided.

### The new record

*Mastixia rostrata* Blume ssp. *caudatifolia* (Merr.) Matthew, *Blumea* 23 (1976) 74. Figure 1.



**Figure 1.** *Mastixia rostrata* ssp. *caudatifolia*. (A) flowering leafy twig; (B) flower bud; (C) open flower; (D) fruit. (A-C from Zainudin & Petol AZ 5764, D from Zainudin & Petol AZ 5766.)

### *Characters of subspecies*

Tree, to 15 m tall. Twigs glabrous to subglabrous. Leaves alternate, sometimes (sub)opposite but then never exclusively so; petioles slender, 0.4 - 0.8(-1) mm thick, to 1.5 cm long; blades elliptic-oblong to elliptic, 4 - 8(-10) × 2 - 4 cm, chartaceous to thin-coriaceous, upper surface glabrous, lower surface glabrescent but hairy on the midrib; base cuneate to acute, margin not recurved, apex caudate with acumen up to 1.5 cm long; lateral veins 4 - 6 pairs, not looping near margin, prominent below, sunken above; intercostal veins conspicuous to faint below. Inflorescences to 6 cm long, lax, subglabrous. Flowers 4-merous, green, submature flower buds to 2 mm diameter; calyx tube glabrous, 4-lobed, lobes broader than long, glabrous; petals 4, 1.1 - 1.3 × 0.7 - 0.9 mm, glabrous on abaxial surface; stamens 4,

filaments 1 - 1.3 mm long. Fruits ovoid to ellipsoid, 1.5 - 2.2 × 0.5 - 1.3 cm; disc persistent, well-exposed; calyx lobes caducous.

### *Distribution*

This subspecies is known elsewhere in the northern half of Sumatra, Bangka and Borneo. In Peninsular Malaysia, it is recorded from Fraser's Hill and Genting Highlands, Pahang.

### *Habitat*

Lower montane forests at 1100 - 1500 m, locally common.

## **Specimens examined**

### *Peninsular Malaysia*

Pahang, Fraser's Hill, Jeriau Road, UKM 1 hectare plot, 25 August 1994, Zainudin & Petol AZ 5760, AZ 5761, AZ 5762, AZ 5763, AZ 5764, AZ 5765, and AZ 5766 (UKMB); Genting Highlands, 27 November 1980, Kamarudin FRI 28788 (KEP).

### *Sumatra*

Atjeh, Gunung Leuser Nature Reserve, Ketambe, Valley of Lau Alas, near tributary of Lau Ketambe, de Wilde & de Wilde-Duyfjes 12714 (KEP).

### *Borneo*

#### Sarawak

3rd Division, Bukit Iju, Ulu Sg. Arip, Balingian, Jugah S. 23740 (KEP, SAR, SING); 4th Division, Bintulu, Segan Forest Reserve, Ilias S. 32130 (KEP, SAR, SING).

#### Sabah

Lahad Datu, Kennedy Bay, Wood & Wyatt-Smith SAN A 4276 (KEP, SING), Kalumpang, Muin Chai SAN 33401 (KEP, SAR); Beluran, Bukit Mangkanana, Labuk, Dewol SAN 90501 (KEP, SAN, SAR, SING); Tawau, Elphinstone Prov., Elmer 21584 (isotypes K, L, SING), Elmer 21870 (SING), Kalabakan, Wood SAN A 4136 (KEP, SING), Aban Gibot SAN 30572 (KEP, SAR), Balung, Aban Gibot SAN 32417 (KEP, SAR, SING), Wood SAN 16456 (KEP, SING).

## Kalimantan

E. Kutei, Sg. Menubar region, Kostermans 5250 (SING), Sg. Susuk region, Kostermans 5546 (SING); W. Kutei, Mt. Palimasan near Tabong on Belajan R., Kostermans 12984 (SING); Balikpapan, near Gunung Mentawir, Kostermans 10145 (KEP, SING), Gunung Beratus, Kostermans 7435 (SING).

*Mastixia rostrata* ssp. *caudatifolia* is closely related to *Mastixia trichotoma* Blume var. *clarkeana* (King) Danser, from which it can be distinguished by the leaf arrangement, leaf apex, lateral veins and intercostal veins, inflorescence length, calyx tube and lobes, petals, and fruit calyx lobes (Table 1).

Table 1. Characters that distinguish *Mastixia rostrata* ssp. *caudatifolia* from *M. trichotoma* var. *clarkeana*

Characters	<i>M. rostrata</i> ssp. <i>caudatifolia</i>	<i>M. trichotoma</i> var. <i>clarkeana</i>
Leaf		
Arrangement	Alternate, sometimes (sub)opposite but then never exclusively so	Exclusively opposite
Apex	Caudate	Acute to acuminate
Lateral veins	Sunken above	Flattened above
Intercostal veins	Conspicuous to faint below	Faintly visible below
Inflorescence	Up to 6 cm long	Up to 10 cm long
Calyx		
Tube	Glabrous	Puberulous
Lobes	Glabrous, broader than long	Subglabrous to puberulous, length and width similar
Petal abaxial surface	Glabrous	Puberulous
Fruit		
Calyx lobes	Caducous	Persistent

Key to *Mastixia* taxa in Peninsular Malaysia

1. Leaves exclusively opposite ..... 2  
   Leaves alternate or spiral, only sometimes (sub) opposite but then never exclusively so ..... 3
2. Twigs and leaves woolly hairy. Leaf lateral veins looping to form marginal veins, sunken above; intercostal veins distinct and prominent below, sunken above. Inflorescences woolly hairy ..... *M. trichotoma* var. *maingayi*  
   Twigs and leaves finely tomentose. Leaf lateral veins not looping, flattened above; intercostal veins faintly visible below, flattened above. Inflorescences subglabrous to puberulous ..... *M. trichotoma* var. *clarkeana*
3. Leaves chartaceous or thin-coriaceous; margin not recurved; apex cuspidate or caudate with acumen up to 1.5 cm long; petioles slender, 0.4 - 0.8(-1)mm thick ..... 4

- Leaves thick-coriaceous; margin recurved; apex acute to acuminate, only sometimes caudate but then never exclusively so; petioles stout, (1-)1.5-2 mm thick ..... 5
4. Leaf lateral veins looping near margin. Flowers 5-merous; calyx tube and petals densely silky hairy on abaxial surface ..... *M. cuspidata*  
 Leaf lateral veins not looping near margin. Flowers 4-merous; calyx tube and petals glabrous on abaxial surface ..... *M. rostrata* spp. *caudatifolia*
5. Leaves obovate to oblong or sometimes elliptic; intercostal veins faint and inconspicuous below. Calyx lobes as long as is wide. Fruits broad-ellipsoid or sometimes ovoid ..... *M. pentandra* spp. *scortechinii*  
 Leaves elliptic to elliptic-oblongate; intercostal veins distinct below. Calyx lobes broader than long. Fruits ovoid ..... *M. pentandra* ssp. *chinensis*

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